



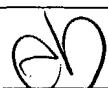
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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------|
| 10/089,896   | 07/16/2002  | Robin B. Somerville  | 656096                       | 1107             |
| 24106  | 7590        | 03/17/2004           |                              |                  |
| HARRISON & EGBERT<br>412 MAIN STREET<br>7TH FLOOR<br>HOUSTON, TX 77002 |             |                      | EXAMINER<br>JOHNSON, JERRY D |                  |
|  |             |                      | ART UNIT<br>1764             | PAPER NUMBER     |

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |   |
|------------------------------|------------------------|---------------------|---|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |   |
|                              | 10/089,896             | SOMERVILLE ET AL.   |   |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Jerry D. Johnson       | 1764                |   |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith.

Smith, U.S. Patent 4,226,601, teaches a process for preparing a coal or lignite fuel, which contains sulfur, for combustion (col. 1, lines 16-18). Sulfur-containing coal or lignite is reduced in size to form a finely divided coal or lignite. The thus pulverized sulfur-containing coal or lignite is then admixed with a finely divided inorganic material (col. 2, lines 41-43). The inorganic material can be, *inter alia*, a hydroxide of calcium (col. 2, lines 50-56). It has been found that as the particle size of the coal or lignite decreases, the efficiency of the invention in reducing the emissions of sulfur containing air contaminants increases. Thus there is no minimum size restriction placed on the particle size of the coal or lignite (col. 3, lines 14-22). When the inorganic materials are added to the coal or lignite in an aqueous or slurry form, substantially all of the solvent or liquid carrier should be evaporated or otherwise removed from the admixture to leave a substantially dry admixture for burning (col. 4, lines 2-6). The inorganic materials should have a particle size in the general range of the particle sizes for the sulfur containing coal or lignite (col. 4, lines 14-17). The pulverized coal or lignite and the finely divided inorganic materials can be intimately admixed together by any suitable means (col. 4, lines 31-33). The amount of inorganic material that will be added to and admixed with the pulverized coal or lignite will depend on the amount of sulfur that is contained in the raw coal or lignite (col. 5, lines 59-62). While Smith does not teach the addition of water after

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blending the coal and inorganic material or the specifically recited numerical values (e.g., temperature or particle size), it would have been obvious to one having ordinary skill in the art to follow the above teachings and arrive at the instantly claimed invention based on optimization of the various process steps.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, the term "high-sulfur coal" is indefinite, i.e., the specification fails to define the sulfur content of a "high-sulfur coal."

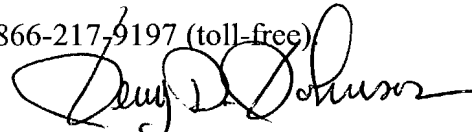
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (571) 272-1448. The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Jerry D. Johnson", written over the toll-free number.

Jerry D. Johnson  
Primary Examiner  
Art Unit 1764

jdj